

Short Answer – if the code wouldn't run, simply write "ERROR"

```
import re
pattern = 'back'
if re.match(pattern, 'backup.txt'):
    print('a')
if re.match(pattern, 'text.back'):
    print('b')
if re.search(pattern, 'backup.txt'):
    print('c')
if re.search(pattern, 'text.back'):
    print('d')
```

1. What is the output of the program to the left?

```
list2 = [1,2]*2+[5,6,[7,8]]
list2.pop(2)
print(list2[::-1])
```

2. What is the output of the program to the left?

```
string1 = "Final"
string1[1] = "a"
print(string1)
```

3. What is the output of the program?

```
def func1():
    var1 = "Exciting"
    def func2():
        var1 = "Relaxing"
        var2 = "Winter Break"
    func2()
    print(var1, var2)

func1()
```

4. What is the output of the program?

```

class Musician():
    def hello():
        print("Hello")
    def play():
        print("mmmm")

class Pianist(Musician):
    def play():
        print("ding dong")

p = Pianist
p.hello()
p.play()

```

6. What is the output of the program?

Multiple Choice

7. Assume that we defined a variable 'soup' as a BeautifulSoup object by grabbing an existing html document. Choose all true statements.

- A. The type of soup.prettify() is <class 'str'>
- B. soup.find_all('img') will contain html elements which have 'img' as a tag.
- C. We can use for or while loop to iterate through soup.find_all(class_="story-heading") object.
- D. None of the above
- E. All of the above

8. Assume that we changed 'final_exam.txt' file in the local git repository. What are unnecessary commands for updating the Github repository?

- A. git commit -m "Commit #1"
- B. git push origin master
- C. git add final_exam.txt
- D. None of the above

True / False

9. Assume that we have a dictionary 'd1'. 'd1.items()' will contain tuples and each tuple will represents each key and value pair.

Matching

1. _____ A format of data which was inspired by the object and array format used in JavaScript.
2. _____ A class method for using the same implementation to maintain the same behavior.
3. _____ A method to concatenate string elements in a list.
4. _____ An immutable sequence of elements.
5. _____ A part of string specified by a range of indices.

- A. JSON**
- B. Inheritance**
- C. Join**
- D. Tuple**
- E. Slice**